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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/714,144	11/17/2000	Yosuke Hoi	0505-0714P	5531

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3613

DATE MAILED: 03/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/714,144

Applicant(s)

HOI ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because there should not be lines connecting two different figures as done by Applicant (with lines 72 and 73) between figures 7d and 7c. See MPEP 608.02(h). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Specification

3. The disclosure is objected to because of the following informalities:
 - On pg. 1 line 9 the phrase "the present invention" makes it appear as if Applicant is referring to limitations of the instant application instead of the prior art;
 - On pg. 8 last line "other is" should be changed to --other are--.Appropriate correction is required.

Claim Objections

4. Claims 4 and 9 are objected to because of the following informalities: the preamble of these dependent claims should be consistent with the respective independent claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 3-5, 8, and 14-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Re: claims 3, 4, 14, and 15. The claims include the limitation of a relief valve having a "generally L-shaped body". The limitation of the generally L-shaped body conflicts with the limitation of claims 1 and 12 which require the relief valve to be parallel to the crank shaft and the main gallery. Clearly, if the valve is generally L-shaped, at least a portion of the valve will be non-parallel to the crank shaft and the main gallery.

Re: claim 8. Claim 8 recites the limitation "said L-shaped body" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Re: claims 15-17. The preambles of the claims are directed to the lubricating apparatus for a dry sump type engine while the preamble of the independent claim 12 is directed to a dry sump type engine. Correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 2, 12, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5249556 to Emmit. Emmit shows in figure 11 a lubricating apparatus for a dry sump type engine comprising: a cylindrical relief valve 28,29,30, the cylindrical relief valve being disposed in parallel to a main gallery 11 shown in figures 3 and 4 and a crank shaft 19 of the engine as shown in figure 11.

9. Claim 7 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5778848 to Takahashi et al. Takahashi et al. show in the figure on the front of the patent the use of a lubricating apparatus capable of being used for a dry sump type engine comprising: an oil tank 58 and a relief valve 73 provided in the oil tank.

10. Claim 11 is rejected under 35 U.S.C. 102(b) as being anticipated by WIPO 99/14109 to Matsuto et al. (using US Patent 6158543 as an English Equivalent throughout the Office Action). Matsuto et al. show in figure 6 the use of a lubricating apparatus capable of being used for a dry sump type engine comprising: an oil tank 101 and a strainer 106 for straining oil recovered in the oil tank is provided in the oil tank.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3-5 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emmitt in view of US Patent 4638856 to Yamanaka et al. Emmitt discloses and shows in figures 10 and 11 the relief valve comprising a body 28 being connected at one end to and in communication with the main gallery 11 the body including a discharge port or oil passage disclosed in col. 5 line 22 formed therein, a cylindrical valve body 30 movably received within the body to open and close the discharge port, and wherein when the hydraulic pressure within the main gallery becomes a predetermined value, the cylindrical valve body is operated to open the discharge port to relieve the hydraulic pressure as disclosed in col. 5 lines 19-23 a stopper 1 for restricting movement of the cylindrical valve body, a spring 29 for biasing the cylindrical valve body toward the stopper, and a spring stop 2 for pressing the spring, but does not disclose that the body is generally L-shaped. Yamanaka et al. teaches in figure 1 the use of a generally L-shaped relief valve including a long pipe or portion above element number 57b, a short pipe or portion below and extending to the left of element number 57b, and a mounting portion (or flange portion of the short pipe portion shown extending below element number 57b). It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to have modified the shape of the relief valve of Emmitt to have been generally L-shaped or any appropriate shape as best determined based on the arrangement of surrounding structures in the engine in order to provide a pressure adjusting means efficiently positioned to make the best use of the interior real estate of the engine.

13. Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Emmitt in view of WIPO 99/14109 to Matsuto et al. Matsuto et al. teach in figure 6 the use of a lubricating apparatus capable of being used for a dry sump type engine comprising: an oil tank 101 and a strainer 106 for straining oil recovered in the oil tank is provided in the oil tank. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the oil tank 25 of Emmitt with a strainer, as taught by, Matsuto et al., in order to provide a means of catching foreign debris traveling in the lubricant.

14. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. in view of Yamanaka et al. Takahashi et al. shows in figure 1 the relief valve further comprising: a lead pipe 72 being connectable with an outlet pipe 66 of an oil filter 71 the relief valve having the limitation wherein when hydraulic pressure within the main gallery becomes a predetermined value, the relief valve relieves the hydraulic pressure. Yamanaka et al. teaches the use of a lead pipe with a discharge port 55 formed therein, a cylindrical valve body 56a movable received within a body to open and close the discharge port. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the relief valve of Takahashi et

al. to have included a detailed construction, as taught by Yamanka et al., as it is a well-known arrangement of a relief valve to enable accurate metering of the pressure in the lubricating apparatus.

Re: claims 9 and 10. Takahashi et al., as modified, teaches stopper or valve seat (See col. 5 line 53 of Yamanaka et al.) for restricting movement of the cylindrical valve body, a spring 56b for biasing the cylindrical valve body toward the stopper, and a spring stop 56c for pressing the spring. See Yamanaka et al. figure 1.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5333578 to Shimura and Japanese Patent JP-4183909 teach the use of an oil filter connected to a relief valve, US Patent 6182624 to Ozeki teach the use of a crankshaft, main gallery, and a relief valve, US Patents: 5031598 to Ueda et al. and 4852532 to Bishop teach the use of a valve arranged parallel to the crankshaft.


16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

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mmb
March 1, 2002


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